

# THE HEAT IS ON



Heating systems should be fit-for-purpose reports Matthew da Silva

Recommending a heating system is not child's play, and there are obligations on installers to give appropriate advice to customers. But what kinds of things do the experts think about when given a job like this? This story may help you to understand what's involved.

**THERE IS AN OBLIGATION TO INFORM CLIENTS ON THE MOST SUITABLE, FIT-FOR-PURPOSE, ENERGY EFFICIENT PRODUCTS**

Advising customers about a heating system can be a complex process and it requires qualified, experienced installers to be involved.

"There is an obligation and a responsibility for people who are doing this work to advise and inform the public on the most suitable, fit-for-purpose,

energy-efficient product," says Peter Kikos, Divisional Executive Officer of the Master Plumbers Association.

Where in Australia the residence is situated, for a start, is a major driver in deciding what kind of equipment to purchase.

"Talking about heating for Queensland is completely different from talking about heating for Melbourne because we have long, cold winters," says Melbourne-based Craig Lee of C. W. Lee Airconditioning.

"We need to have heating in our house virtually for months at a time. In Queensland, you might get maybe three or four days where you might use it continually."

Buying an electric blow heater might well serve a Sydneysider but would work out to be too expensive for a Melburnian.

"You wouldn't even think of trying to heat a house in Melbourne with that," says Lee. "You just couldn't afford to run it. But in Sydney, where you might only have it [on] for a couple of hours a night, it would be alright."

Craig Lee is a member of the Heating, Cooling Alliance of Australia (HCAA), a peak body that provides advice and guidance on systems and installation practices. Its website, [heating.com.au](http://heating.com.au), has been developed with the industry in mind.

"Heating.com.au was website developed with heating and cooling experts. The members of this alliance – and there are about 50 of them in Victoria—specialise in this area of plumbing and provide advice well above the [capacities of your] average installer," says Kikos.

Even where the need for a larger heating system is obvious there are many factors for installers to think about, so having a place to go for information can be extremely valuable for an installer who has been asked to provide advice to a client.

"To choose the type of unit or the size of unit, if you're doing a complete house, you measure up the size of the house," says Michael Shannon of Angus Eeles Plumbing, in Ballarat. "You measure up every single room so you've got your dimensions, window sizes, ceiling heights, what construction the house is, if it's a weatherboard house or if it's a brick house. Has it got an iron roof, has it got a tile roof, which direction the house faces, does it face north?"

"Then we put all that in through a program and that program will then give us what size unit, or not so much what size unit but how many kilowatts we need to put into that house to condition the space required."

Like Shannon, John Stevens of John Stevens Plumbing, in Ballarat, is an HCAA member. Stevens considers access first when advising a customer. This includes working out whether the house has a concrete or a timber floor, if there is access below the floor, and whether there is ceiling space above it.

"Cost comes into it but at the end of the day having what you need or having what suits the house is probably more important than cost alone," he says.

Another factor is whether cooling is also required. Lee asks owners if they also need to have cooling included in the system.

"Because you can get systems that will heat and cool, reverse-cycle, wall-hung, split. Things like that. Or you can get gas with add-on cooling," says Lee.

"Most of the time natural gas and electricity are going to be the two cheapest options," says Stevens. "For your heating, natural gas is usually the best option. Even with the carbon tax.

"Electricity, if you don't have natural gas available, is probably your next best option."

Lee says that "probably" for a three-bedroom house in Melbourne a ducted heating system would be the most cost-efficient way of making it comfortable.

"If you're talking in an apartment, you're probably going to be going for something electric, like a split-type machine. It's easier to get the electricity in, and the place isn't as big, and it gives you your heating and your cooling."

John Stevens says that sometimes a more expensive, hydronic system is the only option.

"Sometimes it doesn't matter whether you want to spend the money or not, it's not possible to put any other kind of heating in some homes except for hydronic heating. This is particularly true in the old Victorian or Edwardian homes that have high ceilings. You can't blow hot air down from the top and you can't always put anything under the floor either."

Michael Shannon says that most of his heating work is in hydronic systems.



"Pipes, radiator panels and a boiler throughout the house; hydronic system is absolutely brilliant for colder climates. It is probably a little bit more expensive to install compared to a ducted system, but it will last longer than a ducted system. And the boilers are generally a bit more efficient than a furnace is as well."

Efficiency will usually be something an installer will take into account when advising customers, and John Stevens says he always sells something that is the most economical to run.

"I do that in the form of selling the most energy-efficient equipment rather than saying that one type of system is cheaper to run than another type of system. I sell more along the lines of the most efficient equipment to do the particular job."

But Craig Lee says more efficient systems are more expensive to purchase and also require more maintenance.

"Generally, more efficient machines require slightly more maintenance to keep them working efficiently. The standard ones will run for longer but what you'll find is with the high efficiencies, unless they're looked at to check that they are working properly they might not be as efficient as you think they are."

Shannon recommends his customers to have their systems serviced annually, and agrees that more highly efficient equipment is more expensive to purchase.

"We would love to see everybody put in five or six star units. It's the right thing for the environment as well. But at the end of the day there is a lot of difference in cost between putting in a mid-efficiency unit compared to a high-efficiency unit."

The type of system that is selected for installation in a house can also be determined to some extent by the type of job it is, says Craig Lee. If an owner-occupier asks for a quote the deciding factors would most likely be different than if a builder, who is constructing multiple homes, makes the request.

"They aren't paying the running costs once they move out," he says. "The same thing applies if we're talking about a rental property for the same house. It's completely different. If I'm going to give you a car to drive to Melbourne in you want something decent. If I have to supply a car for Joe Blow to blog to Melbourne, the cheapest car on the market will get him there."

Equipment that provides a high level of comfort can also cost more, says John Stevens, and Craig Lee agrees.

"With my clients, if you can be sitting in the room and not be aware of where the heating or cooling is coming from, that's an ideal system," Lee says. "Rather than, 'Yes, I know where it's coming from because my left ear is freezing cold.'"

Michael Shannon says that architectural design elements are also a factor in deciding what heating equipment to install in new and modern homes.

"They tend to have more and more glass windows, less wall space. Floor coverings, there are a lot of houses that have either got tiles or similar, instead of carpet. That's where [hydronics] comes into its own, it's lovely and warm."

"You can put as much ducted heating into a house as you like, but if it has a tiled floor, you will still feel the cold. If your feet feel cold as you're walking around in the morning, the rest of you feels cold."

Peter Kikos says that when consumers ring up the Master Plumbers Association and ask for somebody to install a heating system he doesn't recommend "your average plumber".

"The specialists are the best people to ask because they are aware of energy efficiency. They are also aware of the quality of the products that they are installing. This is based on the call-backs they get for repairs, break-downs and servicing."

Master Plumbers is developing a handbook along with Australian Standards for use as a guide for installations.

For more information, visit the Heating and Cooling Alliance of Australia (HCAA) website [www.heating.com.au](http://www.heating.com.au)

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INTO ACCOUNT**